

Annual Drinking Water Quality Report for 2009
The Brunswick Area Water System
April 27, 2010
PWSID 0100005

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water. Our water sources are the Potomac River and Yourtee Springs in Washington County – a part of Harpers Formation Aquifer.

We have a source water protection plan available from our office that provides more information such as potential sources of contamination. This report is also available thru Maryland Department of the Environment (MDE) and the Frederick County Public Library.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If you have any questions about this report or concerning your water utility, please contact **Patrick Hoffmaster** at (301)-834-7671 between the hours of 7 am and 3:30 pm Monday through Friday. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Tuesday of each month at Brunswick City Hall, 1 West Potomac Street at 7 pm.

A copy of this report can be accessed on the City of Brunswick's website which is: www.brunswickmd.gov.

The Brunswick Water System routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st 2009. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

<i>Potomac River Filter Plant</i>						
TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity Range Average	N	.05-0.28 0.10	Ntu	n/a	TT	Soil runoff
Inorganic Contaminants						
Copper (distribution) (2007)	N	0.06	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	< 0.5	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (distribution) (2007)	N	0	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen)	N	1.4	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nickel	N	1.9	ppm	n/a	100	Erosion of natural deposits or leaching.
Barium	N	0.0481	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Arsenic	N	< 2.5	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Thallium	N	0.15	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
Dalapon	N	0.57	ppb	200	200	Runoff from herbicide used on rights of way

Additional Potomac River Source test results are as follows:

Volatile Organic Contaminants						
TTHM (Distribution) [Total trihalomethanes] Range Average	N	0 – 126.4 41.64	ppb	0	80	By-product of drinking water chlorination
HAA5 (Haloacetic acids) (distribution) Range Average	N	0 – 80.68 28.52	ppb	0	60	By-product of drinking water disinfection
Unregulated Contaminants						
Sodium	N	19.6	ppm	N/A	N/A	Erosion of natural deposits
Chloroform	N	17.6	ppb	N/A	N/A	By-product of drinking water disinfection
Bromodichloromethane	N	12.4	ppb	N/A	N/A	By-product of drinking water disinfection
Dibromochloromethane	N	1.7	ppb	N/A	N/A	By-product of drinking water disinfection
Chloroform	N	44.4	ppb	N/A	N/A	By-product of drinking water disinfection

<i>Yourtee Springs</i> TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity Range Average	N	.15-.28 .25	ntu	n/a	TT	Soil runoff
Inorganic Contaminants						
Nitrate (as Nitrogen)	N	< 0.05	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium	N	0.0248	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Antimony	N	0.06	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	< 1.0	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Cadmium	N	0.19	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	N	0.25	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	N	0.13	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
Di(2-ethylhexyl) (2006) phthalate	N	1.1	ppb	0	6	Discharge from rubber and chemical factories
Unregulated Contaminants						
Sodium	N	2.09	ppm	N/A	N/A	Erosion of natural deposits

Note: Test results are for year 2009 unless otherwise noted; all contaminants do not require annual testing.

During 2009 we were required to do standard testing for TTHMs and HAA5s at 4 additional sites in our system to determine the highest potential levels for formation of disinfections by-products. This was required under a new rule called the Stage 2 Rule for Disinfection By-Products. These results are in the following table and they are currently unregulated. In CY 2013, 2 of these sites will become compliance monitoring sites replacing the currently used sites.

Sample Sites	TTHMs Results	HAA5s Results	Average TTHMs	Average HAA5s
City Hall	Range 3.2 to 61.3	Range 3.6 to 50.3	29.6	20.2
Medical Center	Range 18 to 143.3	Range 27.7 to 90	96.58	61.5
Public Works	Range 19 to 134.9	Range 27.2 to 91.4	82.73	59.1
Roy Rodgers	Range 32 to 150	Range 25.6 to 85.4	109.6	60.9

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Brunswick is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>. As can be seen by results listed in the above tables, lead, which is tested for every 3 years, has not been detected in collected samples.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

At the City of Brunswick we work around the clock to provide top quality water to every tap, said Patrick Hoffmaster. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call Patrick Hoffmaster at 301-834-7671 if you have questions about this report.